

## Somali Bantu: Potential Health Problems

### Introduction

Past experience with refugees coming from Kakuma indicates that there is a risk of undiagnosed health conditions and problems once they have settled in the United States. Reports from organizations working with the Somali Bantu in Kakuma and from the State Department indicate that in general the Somali Bantu have lower levels of health than others in the camp, primarily due to lower nutritional levels. This list is intended to better prepare and inform state refugee coordinators, state refugee health coordinators, local resettlement organizations and health care providers about the types of health concerns that may potentially affect the incoming Somali Bantu refugees. This list focuses on the most likely health problems refugees might face.

The information below has been taken from the National Institutes of Health MEDLINE plus Web site <<http://www.nlm.nih.gov/medlineplus/medlineplus.html>>. Please refer to this site for additional information on these health issues.

### Malnutrition

Malnutrition is a common problem among refugees and is a major contributor to a variety of health problems. Malnutrition is the result of decreased intake of one or all food groups or to decreased absorption of nutrients due to illness. Diseases and malnutrition often form a vicious cycle where malnutrition contributes to a decreased immune system, which makes individuals more susceptible to diarrheal illnesses, that in turn leads to decreased absorption of nutrients.

- 1) **Acute or Severe Malnutrition:** Acute malnutrition or wasting is a result of a relatively recent decline in nutritional intake. Nutritional surveys have found that the Somali Bantu have slightly higher levels of acute malnutrition than other groups within the Kakuma refugee camp.<sup>1</sup> Acute or severe malnutrition is generally characterized by the following illnesses.<sup>i</sup>
  - Marasmus is due to inadequate caloric intake and is characterized by failure to gain weight, weight loss with resultant emaciation. Indications of the condition include the loss of subcutaneous fat, which causes poor turgor<sup>2</sup> and wrinkling of skin.
  - Kwashiorkor or protein-calorie malnutrition (PCM) may be due to inadequate intake or absorption of protein in children. Kwashiorkor is most commonly seen in children around 2 years old and/or who have recently been weaned. Initial symptoms are lethargy or irritability and progress into anorexia, increased weakness, decreased muscle tissue, and retarded growth. If untreated, the child develops hepatomegaly,<sup>3</sup> kidney function decreases, and cardiac function is impaired. Indications of the condition include pitting edema in the legs and feet. Skin changes include dermatitis, changes in pigmentation, and changes in hair.

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<sup>1</sup> An IRC nutritional survey performed in January 2003 found that 2.0% of Somali Bantu were considered severely malnourished and only 1.3% of other camp residents fell within that category. Additionally, Somali Bantus

<sup>2</sup> Skin turgor is an abnormality in the skin's ability to change shape and return to normal (elasticity). Skin turgor is the skin's degree of resistance to deformation and is determined by various factors, such as the amount of fluids in the body (hydration) and age.

<sup>3</sup> Hepatomegaly is the enlargement of the liver beyond its normal size.

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Typically, hair is sparse, thin, and often streaked with red or gray color. The condition impairs the immune function leaving the child vulnerable to infection.

- Cachexia is a metabolic disorder marked by general ill health and malnutrition, with weakness and emaciation; and is common in cancer, AIDS and other severe illnesses. In cachexia, there is approximately equal loss of fat and muscle, significant loss of bone mineral content, and it does not respond to nutritional supplements or increased intake.

- 2) **Chronic malnutrition:** Chronic malnutrition is generally a result of perinatal, childhood malnutrition or prolonged periods with insufficient intake. While many individuals who experience childhood malnutrition survive and reach adulthood, these individuals are more likely to have specific, long-term, developmental problems such as loss of intellectual potential, incomplete physical (stunting) or mental development. The greatest concern with chronically malnourished individuals is their increased vulnerability to illness due to an impaired immune system. Due to the extended period of time that the Somali Bantu have been refugees it is very likely that many of them have experienced chronic malnutrition.
- 3) **Micronutrient deficiency:** Micronutrient deficiency is another form of malnutrition that is potentially a significant issue for the incoming Somali Bantu. This is particularly common in groups with little diversity in diet. Children and women are severely affected by deficiencies in iron, vitamin A, iodine, and folate that can lead to low-birth weight, stunting, blindness, mental and developmental delay, and birth defects.<sup>ii</sup> In particular, iron deficient anemia is common. A 1999 survey of the Kakuma population found that approximately 50% of residents ages 6 to 20 had anemia and 7% had severe anemia.<sup>iii</sup>

### Infectious Diseases<sup>iv</sup>

- 1) **Dengue Fever:** Dengue Fever is a flavivirus (several serotypes) infection transmitted by mosquitos. Dengue is usually a self-limited illness characterized by abrupt onset high (biphasic) fever, chills, headache, rash, signs of bleeding, changes in taste, sore throat, nausea, vomiting, diarrhea, anorexia, severe aching muscle spasms and joint pain, and depression. Complications include dengue hemorrhagic fever (DHF), and dengue shock syndrome (DSS).
- 2) **Hepatitis:** Hepatitis refers to syndromes or diseases causing liver inflammation, including inflammation due to viruses and chronic alcohol abuse. Viruses causing hepatitis include Hepatitis A, B, C, E and D (delta factor). Each virus causes a distinct syndrome, though they share some symptoms and consequences. Symptoms for hepatitis include jaundice, fatigue, loss of appetite, nausea and vomiting, low-grade fever, pale or clay colored stools, dark urine, and generalized itching.
  - **Hepatitis A:** Hepatitis A is transmitted by contaminated food or water, or contact with a person who is currently ill with the disease. The Hepatitis A virus is shed in the stools of an infected person during the incubation period of 15 to 45 days before symptoms occur and during the first week of illness. Blood and other

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bodily secretions may also be infectious. The virus does not remain in the body after the infection has resolved, and there is no carrier state (i.e., a person who spreads the disease to others but does not become ill). The symptoms associated with Hepatitis A are similar to the flu, but the skin and eyes may become yellow (jaundiced). Risk factors include having a family member who recently had Hepatitis A, and intravenous drug use. Hepatitis A is the least serious and most mild of the hepatitis diseases. Both of the others can become chronic illnesses, but hepatitis A does not.

- **Hepatitis B:** The majority of people infected with Hepatitis B get rid of the virus within 6 months. However, approximately 10% of people infected with the Hepatitis B virus develop a chronic, life-long infection. People with chronic infection may have symptoms, but many of these patients never develop symptoms. These patients are sometimes referred to as "carriers" and can spread the disease to others. Hepatitis B surface antigen carrier rates in the tropics are > 40 times greater than in the West. Having chronic hepatitis B increases your chance of permanent liver damage, including cirrhosis (scarring of the liver) and liver cancer. Perinatal transmission is common. Typically only pregnant women are tested for or vaccinated against Hepatitis B before resettlement. This is an area of concern and refugees should be tested once they are resettled. There have been several Sudanese Lost Boys from Kakuma who have resettled in the United States have recently been diagnosed with hepatitis B.
- **Hepatitis C:** Hepatitis C is sometimes referred to as non-A or non-B and causes inflammation of the liver. Many infected individuals do not have symptoms and the disease is detected during blood tests for a routine physical or other medical procedure. Individuals at risk for the disease include those who have injected street drugs or shared a needle with infected person, had sex with multiple partners, had sex with a person who has hepatitis C, shared personal items (e.g., toothbrushes and razors) with someone who has hepatitis C, and infants born to hepatitis C infected mothers.
- **Hepatitis D (delta agent):** Hepatitis D infection involves a defective viral agent that causes symptoms only in individuals with the hepatitis B infection. Hepatitis D virus may increase the severity of an acute hepatitis B infection, or cause symptoms in previously asymptomatic hepatitis B carriers. Prompt recognition and treatment of hepatitis B infection can help prevent hepatitis D.

- 3) **HIV/AIDS:** HIV infection is a viral infection caused by a virus (HIV) that gradually destroys the immune system, resulting in hard to fight secondary infections. Acute HIV infection may have symptoms resembling mononucleosis or the flu and typically occurs within 2 - 4 weeks of exposure. Infected individuals generally convert from HIV negative to HIV positive within 3 months of exposure. While infected individuals may have no symptoms for up to 10 years, they can still transmit the infection to others. As their immune system gradually weakens until they are diagnosed with AIDS. Most individuals infected with HIV will progress to AIDS if not treated. However, there is a tiny subset of patients, called non-progressors, who develop AIDS very slowly, or never at all. Any symptoms of illness may occur, since

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infections can occur throughout the body. Special symptoms relating to HIV infection include sore throat, mouth sores (including candidal infection), muscular stiffness or aching, headache, diarrhea, swollen lymph glands, fever, fatigue, various types of rashes (including seborrheic dermatitis) and frequent vaginal yeast infections.

As mentioned above, the principal issue with HIV/AIDS is the susceptibility of infected individuals to secondary opportunistic infections. The most common secondary infections with this disease are pneumocystis carinii pneumonia, candidiasis, cytomegalovirus infection, toxoplasmosis, cryptococcus, cryptosporidium enterocolitis and mycobacterium avium complex (MAC). Infected individuals may also develop HIV dementia, HIV lipodystrophy and chronic wasting from HIV infection.

HIV/AIDS is considered a class A, excludable condition for entry into the United States and all refugees are tested for the disease prior to entering the country. HIV positive refugee are frequently given waivers and are allowed to resettle in the United States. Given the complexity of treatment for HIV/AIDS, their lack of familiarity with western medicine and the low level of education of the Somali Bantu, individuals with the disease will need a great deal of guidance, education and monitoring.

- 4) **Malaria:** Malaria is caused by the protozoas (*Plasmodium falciporum*, *P. vivax*, *P. ovale*, and *P. malariae*) and is generally transmitted by mosquito bite. Malaria is usually characterized by sudden onset of high fever, sweating, chills, uncontrollable shaking, headache, and enlargement of the spleen. Fever tends to wax and wane in 48-72 hour cycles, though cycles may be irregular. Onset may also be insidious, with less dramatic symptoms such as fever, headache, difficulty breathing, abdominal pain, nausea, diarrhea, muscle pain, and enlargement of the spleen. Cerebral malaria, which is life-threatening, is characterized by gradual onset of severe headache, drowsiness, delirium, and coma. Seizures may also occur and are most common in children. Children are at higher risk of dying from malaria. Treatment depends on the organism, immune status of the patient, and severity of the attack.
- 5) **Measles:** Vaccination rates are reported to be high from the Kakuma camp (e.g., approximately 50% confirmed by immunization card and 90% reported by mothers).<sup>v</sup>
- 6) **Shigellosis or bacillary dysentery:** Acute diarrheal illness from *Shigella sp.* transmitted via fecal-oral route. Shigellosis is especially common in children and is particularly prevalent in malnourished populations with inadequate sanitary conditions. Treatment is focused on prevention of dehydration.
- 7) **Syphilis:** There are two forms of the syphilis. The most commonly known form is the venereal disease. There are several stages to syphilis. The first generally occurs about 2 - 3 weeks after the initial exposure and is characterised by painless sores, called chancres. The sores typically disappear within 4 – 6 weeks. Some individuals may not notice the sores particularly if they are located in the rectum or cervix.

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If the disease goes untreated, a third of those infected progress to the second stage about 2 - 8 weeks after the appearance of the original chancre, and is the most contagious stage of the disease. In the second stage, the bacteria have spread into the bloodstream causing symptoms such as skin rashes primarily on the palms and soles, as well as lesions in the mouth, vagina, penis (mucous patches), swollen lymph nodes, and fever. This stage can last just a few weeks or a year and is followed by a latent phase, which may last for years and is characterized by the absence of symptoms.

The final stage of syphilis is called tertiary syphilis and is characterized by brain or central nervous system involvement (neurosyphilis), cardiovascular involvement with inflammation of the aorta (aortitis or aneurysms), and gummatous syphilis (destructive lesions of the skin and bones).

The endemic form of syphilis is primarily a childhood illness occurring primarily in arid climates of the developing world. The prevalence of (endemic) syphilis infection among children <10 years of age ranges up to 19% among some nomadic groups in Africa.

- 8) **Trachoma:** Trachoma is caused by infection with the bacteria *Chlamydia trachomatis* and has an incubation period of 5 to 12 days. Trachoma is passed by direct contact with the eye or nose-throat secretions from infected individuals, but can also be spread by objects contaminated with these secretions, such as towels or clothes. The condition begins as conjunctivitis (commonly known as "pink eye"), which if untreated may become chronic and lead to scarring. The eyelids can become severely irritated, causing the eyelashes to turn in and rub against the cornea, which causes eye ulcers, further scarring, visual loss, and even blindness. Although the disease generally affects children, the consequences may not be evident until later in life.
- 9) **Tuberculosis:** Tuberculosis (TB) is a chronic infection - most commonly pulmonary. The infection is usually acquired through inhalation of infected droplets expelled by cough from a person with active disease. Most cases (85%) of TB are pulmonary. Pulmonary symptoms include cough, chest pain, and spitting up blood. Constitutional symptoms are often present in pulmonary disease, and include fever, chills, night sweats, fatigue, decreased appetite, and weight loss. Symptoms of extrapulmonary TB depend on the site(s) of infection. Nonpulmonary TB should not be ignored when screening African refugees. The treatment of TB is complex and rapidly evolving. Treatment is according to (a) classification of disease, e.g., exposure without infection, infection without disease, current TB disease, previous TB disease, or TB suspected; (b) whether disease is drug-resistant; (c) immune status of the patient; and (d) other factors.
- 10) **Typhoid and paratyphoid fever (or enteric fever):** Typhoid fever is an acute systemic febrile illness. Typhoid is usually spread by feces-contaminated food or water. A vaccine is available but is not completely effective. Incubation is highly

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variable, ranging from 3-60 days. The illness starts with the gradual onset of steadily increasing and then persistently high fever. However, children may experience abrupt onset. Early symptoms are fever, chills, malaise, headache, sore throat, cough, and abdominal pain and constipation or diarrhea. As the illness progresses, prostration, abdominal distension, enlarged liver, anorexia, and weight loss are common. Untreated typhoid may result in complications in any of the body systems. The severity of illness varies according to immunocompetence, infectious dose of microorganisms, and other factors. Early effective treatment results in increased frequency of (usually mild) relapse.

### Parasites

Refugees are often treated for common parasites, but not all parasites, before coming to the US. However, most refugees are tested only if they show symptoms during the health examination. There have been some cases of refugees going untreated for parasites.

- 1) **Ascariasis:** Ascariasis is a nematode or roundworm infection with *Ascaris lumbricoides* causing transient respiratory symptoms initially and chronic gastrointestinal symptoms. The adult worms are more than 20 cm. in length, hence are easily seen in stool and may also emerge from the nose or mouth as a result of coughing or vomiting.
- 2) **Dog tapeworm** (hydatid or *Echinococcus granulosus*): The dog tapeworm primarily affects the liver and lungs but can also be found in other parts of the body. Symptoms include swelling, abdominal pains and pressure, weakness and difficulty breathing. Common treatments for the disease include albendazole, or surgical removal of the cysts followed by filling the cavity with centrimide for five minutes to destroy any remaining larvae or eggs.<sup>vi</sup>
- 3) **Enterobiasis or Pinworm infection:** Enterobiasis is a nematode infection of the intestinal tract caused by *Enterobius vermicularis* eggs, which are ingested in contaminated food or dirty hands. Manifestations/associated problems include itching around the anus, inflammation of genitals in prepubertal girls, and secondary enuresis and urinary tract infection.
- 4) **Filariasis:** The filarial parasites are roundworms that live in tissue. Their microfilarial (mf) larvae can be transmitted by several species of mosquitoes or flies. Problematic forms of filariasis include 1) Bancroftian filariasis and Malayan filariasis which effect the lymphatic system and result in elephantiasis; 2) loiasis or loa loa in which worms live in subcutaneous tissue; and 3) Onchocerciasis causes river blindness and skin disorders. In most cases, treatment is effective only against the microfilarial. Therefore, it may be necessary to repeat the treatment if the infection continues.
- 5) **Giardia:** An infection of the small intestine caused by a protozoa which is common in areas where the water supplies are contaminated with raw sewage. The most

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common means of contracting the parasite is by drinking water from lakes or streams near water-dwelling and/or domestic animals. It can also be spread by direct person-to-person contact, unprotected anal sex, exposure to a family member with giardiasis. The acute phase last 7 – 14 days. The symptoms include diarrhea, abdominal pain and/or fullness (gaseous or bloated sensation), swollen or distended abdomen, nausea, loss of appetite, vomiting, headaches, and a low grade fever. Although it is common that the illness resolve itself, persistent infections are not uncommon and require further antibiotic treatment. In some cases, symptoms continue after the infection is gone.

- 6) **Guinea worm** (Dracunculiasis): Guinea worm disease is caused by the nematode (roundworm). Humans become infected by drinking unfiltered water containing copepods (small crustaceans), which are infected with larvae. Following ingestion, the copepods die, release the larvae into the host's stomach and intestinal wall and enter the abdominal cavity. Approximately one year after infection, the worms are matured and reproduce. The females migrate in the subcutaneous tissues towards the skin surface forming a blister on the skin - generally on a lower extremity, which eventually ruptures. While the blister is localized it is generally incapacitating. Once the worm emerges from the ulcer the site is inflamed and open to secondary infections.<sup>vii</sup>
- 7) **Leishmaniasis**: The *Leishmania* is a protozoa parasite species transmitted by sandflies and the parasite migrates to the bone marrow, spleen, and lymph nodes. There are several forms of the disease. The first affects the mucous membranes and typically causes ulcers on the skin. Another form is a systemic (visceral) and attacks the immune system, resulting in increased risk to other infections. Incubation is usually 2-6 months or longer and relapse may occur as many as 10 years after first episode. Systemic infection in children usually begins suddenly with vomiting, diarrhea, fever and cough. In adults, the fever can last for 2 weeks to 2 months and is accompanied by fatigue, weakness and loss of appetite. The skin can become grayish, dark, dry, and flaky. Death often occurs within 2 years due to other infections.
- 8) **Schistosoma**: Schistosoma infections are caused by a worm that is contracted through contact with contaminated water and swims freely in open bodies of water. The parasite burrows into the skin, matures into another larval stage (schistosomula), and then migrates to the lungs and liver (where it matures into the adult form). The adult worm then migrates to various parts of the body such as the bladder, rectum, intestines, liver, portal venous system, spleen, and lungs. Symptoms vary with the species of worm and the phase of infection and include; itching, rashes, fever, chills, lymph node enlargement, liver and spleen enlargement, frequent and painful urination (dysuria), blood in urine (hematuria), abdominal pain and diarrhea (which may be bloody). It is also common for a salmonella infection to be concurrent with the schistosomiasis and is resistant to treatment unless the schistosomiasis is also treated. There are two types of the worm that are common in Africa, *S. mansoni* (primarily affects the liver and intestines) and *S. haematobium*

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(primarily affects the urinary tract). Regardless of whether there is blood in the urine test, refugees should be tested for schistosoma.

In cases with a prolonged infection, insoluble protein fibers are deposited in tissues and organs, impairing their function. Although the acute and early chronic lesions regress under antiparasitic treatment, chronic sequelae are irreversible.

*S.hematobium* infection causes fibrosis and calcification of the ova in the tissue of the lower urinary tract. This leads to obstruction, reflux, infection, and stone formation in the kidneys. The interstitial nephritis may appear to be tubular dysfunction syndrome before progressing to end-stage renal disease. It is common for precancerous lesions to form on the bladder.

- 9) **Strongyloidiasis:** Strongyloidiasis is a nematode or roundworm infection by *Strongyloides stercoralis* following larval penetration of the skin. A small number of infected persons are asymptomatic. Symptoms on the skin may occur at the site of penetration (often feet), and include inflammation, serpiginous or urticarial tracts, and itching. Intestinal manifestations follow those on the skin, and include abdominal pain, nausea, flatulence, and diarrhea. Larval migration to lungs results in a variety of pulmonary symptoms, ranging from cough to pneumonia, pleural effusion, and miliary abscesses. Hyperinfection syndrome causes life-threatening CNS, cardiac, and wide-ranging gastrointestinal problems.
- 10) **Trichuriasis** (trichocephaliasis or whipworm): Trichuriasis is a nematode or roundworm infection with *Trichuris trichiura*. Severe infections may result in abdominal cramping, nausea, vomiting, flatulence, diarrhea, painful bowel movements, and weight loss. Mild infections are usually asymptomatic.

### Oral Health Care

Most of the refugees have never had any dental health care and as a result one of the most prevalent personal health problem faced by refugees are oral and dental health conditions such as periodontal disease, caries, gingivitis and calculus, and tooth decay.

### Cultural Issues

- 1) **Traditional medicine:** Many Somali Bantu believe that some illnesses are the result of being cursed, and/or targeted by evil spirits and therefore do not seek medical attention, but go to a traditional healer who performs ceremonies and rituals to remove the curse or cast out the spirit. Beyond rituals, traditional treatments for illnesses often include burning, cutting or lacerations. This includes applying hot metal nails to the forehead, chest, faces and other body parts. It is also common that the milk teeth of infants are pulled to heal diarrhea during teething.
- 2) **Reproductive health:** The Somali Bantu have a very high fertility rate, which affects the mothers' and children's' health. Frequent pregnancies affect the mother's nutritional status, leaving them more susceptible to disease. Due to the mother's low nutritional status during pregnancy, infants have an increased risk of low birth weights.



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Although it is reported that the average age of marriage for women is 16, there are cases of girls as young as 12 being married.<sup>viii</sup> Few of the Somali Bantu have been exposed to modern birth control methods and teen pregnancy is common.

The Somali Bantu practice female genital cutting (FGC). There are several health risks associated with this practice. The incoming refugees are aware that it will not be legal to continue this practice once they enter the United States. There is anecdotal information suggesting that many are having the procedure preformed on their daughters prior to their departure. Those who recently had the procedure preformed are at risk for infection due to poor sanitary conditions. These procedures are often performed as a group using the same razor blade or knife for all the girls, which could spread blood born diseases. Pregnant women who have had FGC are at a substantially higher risk of complications during pregnancy and delivery. Problems around delivery are complicated because it is common practice for women to deliver at home with the assistance of a traditional birthing attendant.<sup>ix</sup> Certain types of FGC also increase the risks of contracting HIV.

### Language Issues

Very few Somali Bantu have been exposed to or speak English, and the majority them are also not literate in their own languages. It is very important that they have access to interpreters, particularly during their health examinations and any subsequent health care. There are varying reports about the percentage of Somali Bantu that speak particular languages such as Swahili, Maymay, Zizigua and/or Somali (af Maxaa, pronounced af mahaa). It is estimated that the majority of Somali Bantus speak Maymay, which is also known as af Maay (pronounced af my). Although af Maxaa is the official language of Somalia, there are conflicting reports about percentage of Somali Bantu are familiar with the language. While there are similarities between the written forms of Maymay and af Maxaa, the spoken forms are different enough to be mutually unintelligible. Approximately 10-20% speak Zizigua, which is a dialect of Swahili. Based on the available information, it is recommended that resettlement groups first use Maymay interpreters.

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<sup>i</sup> Refugee Health ~ Immigrant Health web site [http://www3.baylor.edu/~Charles\\_Kemp/africa.htm](http://www3.baylor.edu/~Charles_Kemp/africa.htm)

<sup>ii</sup> Micronutrient Malnutrition: *Global Elimination of Micronutrient Malnutrition in the Next Century*. CDC web site <http://www.cdc.gov/nceh/globalhealth/GHAR/priorities/micronutrient/mnm.htm>

<sup>iii</sup> CDC Nutrition <http://www.csc.gov/nceh/ierh/nutritionres.htm>

<sup>iv</sup> Refugee Health ~ Immigrant Health web site [http://www3.baylor.edu/~Charles\\_Kemp/africa.htm](http://www3.baylor.edu/~Charles_Kemp/africa.htm)

<sup>v</sup> United Nations Sub-Committee on Nutrition January 2003 –RNIS 40

<sup>vi</sup> Amref fights dog worm disease in Turkana. *Biosafety News*. Issue no. 28, January 2002.

<sup>vii</sup> Weekly epidemiological record. WHO 2003, 78, 145-156. no. 18 WHO

<sup>viii</sup> International Organization for Migration Somali Bantu Report: Cultural Orientation Africa Project, IOM Nairobi, April 2002.

<sup>ix</sup> International Organization for Migration Somali Bantu Report: Cultural Orientation Africa Project, IOM Nairobi, April 2002.